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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,425	03/12/2004	Hiroshi Ono	250040US3	6540

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EXAMINER

CRENSHAW, MARVIN P

ART UNIT PAPER NUMBER

2854

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/798,425

Applicant(s)

ONO ET AL.

Examiner

Marvin P. Crenshaw

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed on 12/09/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 22, 25 - 28, 32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 15 - 22, 25 - 28, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 3 - 5, 7, 8 and 12 - 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Allowable Subject Matter***

Claims 9, 15 – 22, 25 - 28, 32 and 33 are allowed.

Claims 3 - 5, 7, 8 and 12 – 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

With respect to claim 3, the prior art does not teach or render obvious the total combination as claimed including the shaft coupling device wherein the grip portion and the first shaft are one piece.

With respect to claim 4, the prior art does not teach or render obvious the total combination as claimed including a shaft coupling device wherein end portions of the first shaft and the second shaft, are coupled to each other and are respectively inserted into a shaft center holding portion configured to hold the first shaft and the second shaft coaxially to each other, and the shaft center holding portion is positioned at a distance away from a tip of the end of the grip portion the distance being greater than the length of the notches.

With respect to claim 7, the prior art does not teach or render obvious the total combination as claimed including a shaft coupling device wherein the grip force acting unit and the grip unit include screw portions, and the grip force acting unit moves toward the grip unit when the screw portions are screwed onto each other.

With respect to claim 8, the prior art does not teach or render obvious the total combination as claimed including a shaft coupling device wherein a contacting portion of the grip unit at which the grip unit contacts the grip force acting unit is tapered, and the grip force acting unit abuts on the contacting portion to move the grip portion in the radial direction when the grip force acting unit is moved toward the grip unit.

With respect to claim 9, the prior art does not teach or render obvious the total combination as claimed including a shaft coupling device wherein the grip force acting unit is a clamp member configured to fasten the grip portion from around an outer periphery of the grip portion.

With respect to claim 12, the prior art does not teach or render obvious the total combination as claimed including a shaft coupling device wherein the grip force acting unit rotates around and moves in parallel with the central axis of the output shaft as the grip force acting unit is screwed onto the grip unit.

With respect to claim 15, the prior art does not teach or render obvious the total combination as claimed including an image forming apparatus comprising a grip force acting unit to be attached to the remaining shaft to cause a grip force for gripping the remaining shaft to act on the grip portion by moving the grip portion in a radial direction of the remaining shaft wherein said grip force acting unit comprises a clamp member configured to fasten the grip portion from around substantially an entire outer periphery of the grip portion.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 6, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by McGugan et al.

McGugan et al. teaches a shaft coupling device (Fig. 1) which couples a first shaft (1) and a second shaft (8) together, comprising a grip unit (3) to be attached to the first shaft and including a grip portion (See Col. 4, lines 1 - 5) configured to grip the second shaft, the grip portion having an end with notches of a length being parallel with an axial direction of the first shaft and a grip force acting unit (13) to be attached to the second shaft and configured to cause a grip force for gripping the second shaft to act on the grip portion by moving the grip portion in a radial direction of the second shaft.

With respect to claim 2, McGugan et al. teaches the shaft coupling device (Fig. 1) wherein the grip unit is detachably attached to the first shaft.

With respect to claim 6, McGugan et al. teaches the shaft coupling device (Fig. 1) wherein the grip force acting unit (13) causes the grip force to act on the grip portion by abutting (Fig. 1) on the grip portion to move the grip portion in the radial direction when the grip force acting unit is moved toward the grip unit.

With respect to claim 10, McGugan et al. teaches a shaft coupling device (Fig. 1) that couples a first shaft (1) and a second shaft (8) comprising a grip unit (3) including a parallel surface parallel with a central axis of the first shaft and configured to grip the second shaft by abutting the parallel surface on the second shaft and a grip force acting unit (13) configured to cause a grip force for gripping the second shaft to act on the parallel surface, wherein the grip force acting unit (Fig. 1) moves along an outer peripheral surface of the grip unit in parallel with a central axis of the second shaft to change a pressure acting on the grip unit, and the parallel surface of the grip unit is caused to abut on an outer peripheral surface of the second shaft by the pressure to grip the second shaft.

With respect to claim 11, McGugan et al. teaches the shaft coupling device (Fig. 1) wherein one of the first shaft (1) and the second shaft (18) is a rotating member supporting shaft configured to support a rotating member and another one of the first shaft and the second shaft is an output shaft of a motor configured to rotate the rotating member supporting shaft.

### ***Response to Arguments***


Applicant's arguments with respect to claims 1 - 33 have been considered but are moot in view of the new ground(s) of rejection. Specifically, McGugan teaches the shaft coupling device for coupling a first and second shaft together.

### ***Conclusion***

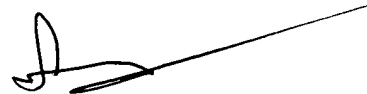
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin P. Crenshaw whose telephone number is (571) 272-2158. The examiner can normally be reached on Monday - Thursday 7:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MPC  
February 13, 2006



**STEPHEN MEIER**  
**SUPERVISORY PATENT EXAMINER**